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REMARKS

The Applicant has carefully reviewed and considered the Office Action of July 12, 2004. In response the Applicant amends claim 1 to incorporate part of the subject matter of claim 4. Additionally claim 4 is amended to delete that subject matter moved from claim 4 into claim 1. Claims 22 and 24 are also amended in order to further distinguish from the prior art. All other pending claims have been maintained in their previously presented form.

Amended claim 1 very clearly patentably distinguishes over U.S. Patent 3,622,445 to Heidweiller. Amended claim 1 reads on a wet-laid nonwoven reinforcing mat and explicitly recites a base web including about 10 to less than 50 percent by weight glass fibers, about 50 to about 90 percent by weight polyethylene terephthalate fibers having a diameter of from about 6 to about 12 microns and polyvinyl alcohol in an amount of about 16 to about 35% of the combined weight of the glass fibers and the polyethylene terephthalate fibers. On page 4 of the Office Action the Examiner explicitly acknowledges that the Heidweiller patent fails to disclose glass fibers being present in the claimed weight percentage and polyethylene terephthalate fibers having the claimed diameter. Thus, there are two points of distinction, one relating to the amount of glass fibers in the base web and the other relating to the size of the polyethylene terephthalate fibers.

Despite these two distinctions the Examiner maintains the rejection of this claim based upon the Heidweiller patent. As support for her rejection the Examiner cites *In re Boesch*, 205 USPQ 215 (CCPA 1980).

It was explicitly noted by the CCPA in *Boesch* that the ranges of constituents in the appellants' claimed alloys overlapped ranges disclosed in the cited prior art references (see pp. 218 -219 of the *Boesch* decision). That is not true here and, in fact, that point of distinction has already been acknowledged by the Examiner. Specifically, on page 4 of the Office Action the Examiner notes that "... Heidweiller discloses the claimed invention except for that the glass fibers are present in the weight of about 10 to less than 50% as required by claim 1" Thus, it is clearly established that the *Boesch* decision is not controlling.

In formulating the rejection of claim 1 based upon the Heidweiller patent, the Examiner explicitly notes that "one would have been motivated to optimize the amount of polyvinyl alcohol, secondary binder, glass fibers and polyethylene terephthalate fibers to create a pliable, strong, highly dimensionally stable web with high tear and compressive strength." Thus, the Examiner has clearly taken administrative notice of the existence of motivation

for one skilled in the art to improve the formulation disclosed in the Heidweiller patent.

The present invention is not obvious in view of the Heidweiller patent and the Heidweiller patent provides no proper basis for maintaining a rejection of claim 1 under 35 U.S.C. 103. The Examiner has overlooked that the Heidweiller patent explicitly teaches that a web must include 50% or more glass fibers. That teaching diverges from and teaches away from the present invention and, therefore, supports the patentability of claim 1. See *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 USPQ 303, 311 (Fed. Cir. 1983) and *In re Fine*, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988).

Stated another way, the *Boesch* decision relied on by the Examiner requires that the ranges of constituents in the claims overlap the ranges disclosed in the prior art. In the instant case the claimed range is about 10 to less than 50% by weight glass fibers yet, the prior art explicitly teaches providing greater than 50% glass fibers. There is no overlap and, in fact, the Heidweiller patent teaches away from the claimed range. When this is considered in further light of the existence of strong motivation to improve on the Heidweiller patent and the passage of over 30 years to arrive at the presently claimed invention, the patentability of claim 1 is clearly established.

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Claims 2-8, 11, 13-18 and 21 which depend from claim 1 and are rejected on the same grounds are equally allowable for the same reasons. Further, many of these claims include additional limitations that further support their allowability. For example, claim 13 explicitly provides that the base web includes glass fibers in an amount of about 25 to about 40% by weight of the fibers. This range is even further removed from the range explicitly taught in the Heidweiller patent than the distinguishing range of about 10 to less than 50% noted above in claim 1.

Claims 1 and 6 also patentably distinguish over U.S. Patent 5,935,879 to Helwig et al. More specifically, amended claim 1 incorporates subject matter from claim 4. Since the Helwig et al. '879 patent was not found to provide a basis for the rejection of claim 4, amended claim 1 should distinguish over this reference. The same is, of course, true of claim 6 which now depends from amended claim 1. Similar arguments are also applicable to dependent claims 12, 19 and 20 since the combination of references cited to reject these claims were not found to be applicable to a rejection of claim 4.

Independent claim 22 also clearly patentably distinguishes over the Heidweiller patent even when considered in combination with U.S. Patent 6,267,843 to Helwig et al. Like claim 1, claim 22 refers to a base web

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including about 10 to less than 50% by weight glass fibers. Additionally, claim 22 refers to the fact that the polyvinyl alcohol is a fiber form having a diameter of about 6 to about 20 microns. As previously acknowledged by the Examiner neither of these parameters is disclosed in the Heidweiller patent.

Further, the Heidweiller patent actually teaches away from providing less than 50% glass fibers in a base web. Thus, when considered alone the primary reference to Heidweiller provides no basis for the rejection of claim 22 or for that matter, claim 23 dependent thereon. Similarly, the Helwig et al. '843 patent also teaches providing glass fibers at a percentage above 50% (note "50 to 90% glass" at column 2 line 31). Thus, the secondary reference also teaches away from the presently claimed invention. In fact, the references cited and applied by the Examiner in rejecting claims 22 and 23 arguably establish that for over 30 years those skilled in the art have deemed it necessary to use greater than 50% glass fibers in mats. Such a showing supports the patentability of the invention rather than providing a basis of rejection. Whether considered alone or in combination, the cited references fail to teach or suggest the claimed invention or how any advantage is achieved in utilizing polyvinyl alcohol in a fiber form of particular diameter and length in a mat of less than 50% glass fibers as claimed. Thus, the patentability of claims 22 and 23 is conclusively established.

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Finally, claim 24 also patentability distinguishes over the Heidweiller patent even when considered in combination with U.S. Patent 5,800,675 to Kinsley, Jr. Like claim 1, claim 24 recites a base web including a bat 10 of less than 50% by weight glass fibers. This is in total contrast to the explicit teachings of the primary reference to Heidweiller which refer to a web or mat of 50% or more glass fibers. The Kinsley, Jr. patent relates to a process for making a paper based product containing a binder. That product does not include glass fibers and, accordingly, this secondary reference does nothing to address or alleviate the shortcoming noted above with respect to the primary reference to Heidweiller. As such, this combination of references provides no basis whatsoever for the rejection of claim 24 which should be allowed.

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In summary, all the pending claims patentably distinguish over the prior art and should be allowed. Upon careful review and consideration it is believed the Examiner will agree with this proposition. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited. If any fees are required pertaining to this response, Applicant requests that they be charged to Deposit Account No. 50-0568.

Respectfully submitted,



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